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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/095,323	06/10/1998	MICHAEL D. LAUFER	ASTXNA00100	9521

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EXAMINER

SHAY, DAVID M

ART UNIT PAPER NUMBER

3735

DATE MAILED: 06/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/095,323

Applicant(s)

LAUFER, MICHAEL D.

Examiner

david shay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on March 6, 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 and 48-59 is/are pending in the application.
- 4a) Of the above claim(s) 1-27, 48 and 49 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 28-37 and 50 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on March 6, 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date March 6, 2006.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 50-68, are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Doi in view of Kuth et al.

See Figure 4; column 1, line 21 to column2, line 47; and column 4, line 14 to column 5, line 23.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 28 and 50 are rejected under 35 USC 103 a, as being unpatentable over Doi in view of Kuth et al. Doi teaches using laser energy to reduce constrictions in bronchi (see Figure 4; column 1, line 21 to column2, line 47; and column 4, line 14 to column 5, line 23). Kuth et al teach that constriction of the bronchi is one of the symptoms of asthma. It would have been obvious to the artisan of ordinary skill to treat the bronchial constriction that is a symptom of asthma with the device of Doi, since Doi discloses that the method is useful generally, without admonition to avoid treating constriction due to certain causes, thus producing a method such as claimed.

Claims 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Doi in view of Kuth et al as applied to claims 28 and 50 above, and further in combination with Clarke in combination with Waksman et al and the admitted prior art that the media is highly absorbant. Clark teaches a method of killing smooth muscle cells (see column 2, lines 16 to 50). Using

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ultraviolet radiation in the 240 two 280 nm range (see the paragraph bridging columns 2 and 3, for example) Waksman et al teach the well-known equivalence that treatments for blood vessels to prevent excess proliferation of smooth muscle cells (the paragraph bridging pages 3 and 4) is also useful on trachea and bronchi see page 5, lines 25 to 31). Thus it would have been obvious to the artisan of ordinary skill to employ the wavelengths of Clarke in bronchial tissue, since these are equivalents, and are composed of smooth muscle cells that respond to the same irradiated treatments as blood vessels, as taught by Waksman et al and to employ a radioactive source, since this is a notorious equivalent to electromagnetic radiation for killing smooth muscle cells, as both electromagnetic radiation and radioactivity involve bombardment of the cells with highly energetic particles which are absorbed by the cells to disrupt their function and kill them, official notice of which has already been taken and to use other wavelengths since the media is highly absorbent; to employ the method on long lesions, which would require movement while radiating since lesions which cover long portions must be treated as well; and to employ the method in asthmatic lung, since there is no indication that the smooth muscle cells therein would respond any differently than those in nonasthmatic lung, thus producing a method such as claimed.

Claims 33-37 are rejected under 35 USC 103 a, as being unpatentable over Clarke in combination with Waksman et al and the admitted prior art that the media is highly absorbant. Clark teaches a method of killing smooth muscle cells (see column 2, lines 16 to 50). Using ultraviolet radiation in the 240 two 280 nm range (see the paragraph bridging columns 2 and 3, for example) Waksman et al teach the well-known equivalence that treatments for blood vessels to prevent excess proliferation of smooth muscle cells (the paragraph bridging pages 3 and 4) is

also useful on trachea and bronchi see page 5, lines 25 to 31). Thus it would have been obvious to the artisan of ordinary skill to employ the method in bronchial tissue, since these are equivalents, and are composed of smooth muscle cells that respond to the same irradiated treatments as blood vessels, as taught by Waksman et al and to employ a radioactive source, since this is a notorious equivalent to electromagnetic radiation for killing smooth muscle cells, as both electromagnetic radiation and radioactivity involve bombardment of the cells with highly energetic particles which are absorbed by the cells to disrupt their function and kill them, official notice of which is hereby taken and to use other wavelengths since the media is highly absorbent; to employ the method on long lesions, which would require movement while radiating since lesions which cover long portions must be treated as well; and to employ the method in asthmatic lung, since there is no indication that the smooth muscle cells therein would respond any differently than those in nonasthmatic lung, thus producing a method such as claimed.

Applicant's arguments filed March 6, 2006 have been fully considered but they are not persuasive. The arguments are not persuasive because claims 33-37 have not been amended.

Applicant's arguments with respect to claims 28-32 and 50 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

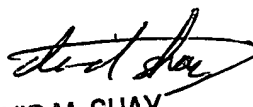
A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to david shay whose telephone number is (571) 272-4773. The examiner can normally be reached on Tuesday through Friday from 6:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Marmor, II, can be reached on Monday, Tuesday, Wednesday, Thursday, and Friday. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


DAVID M. SHAY
PRIMARY EXAMINER
GROUP 330